Version with Markings to Show Changes Made to the Claims

4. (Amended) The method for producing an aromatic compound isomer as claimed in [any of claims] claim 1 [to 3], wherein the impurities in the desorbent are removed through any of distillation, purging or adsorption to a solid adsorbent.

5. (Amended) The method for producing an aromatic compound isomer as claimed in [any of claims] claim 1 [to 3], wherein the impurities in the desorbent are removed by replacing a part of the used desorbent with an impurity-free fresh desorbent.

6. (Amended) The method for producing an aromatic compound isomer as claimed in [any of claims] claim 1 [to 5], wherein all or part of the desorbent to be supplied to the adsorptive separation step is first continuously or intermittently supplied to a step of removing impurities from it, and then supplied to the adsorptive separation step.

Please add the following new claims:

7. (New) A method for producing an aromatic compound isomer substituted with alkyl group(s) and/or halogen atom(s), through adsorptive separation by the use of a zeolite-containing adsorbent and a desorbent, wherein the desorbent is, after having been processed for removing oxygen-containing or high boiling point compound impurities from it, supplied to the adsorptive separation step.

8. (New) A method for producing an aromatic compound isomer substituted with alkyl group(s) and/or halogen atom(s), through adsorptive separation by the use of a zeolite-containing adsorbent and a desorbent, wherein the desorbent is, after having been processed for removing impurities having an aldehyde group or a carboxyl group from it, supplied to the adsorptive separation step.

9. (New) A method for producing an aromatic compound isomer substituted with alkyl group(s) and/or halogen atom(s), through adsorptive separation by the use of a zeolite-containing adsorbent and a desorbent, wherein the desorbent is, after having been processed for removing impurities produced during adsorptive separation from it, supplied to the adsorptive separation step.

10. (New) A method for producing an aromatic compound isomer substituted with alkyl group(s) and/or halogen atom(s), through adsorptive separation by the use of a zeolite-containing adsorbent and a desorbent, wherein the desorbent is, after having been processed for removing oxygen-containing or high boiling point compound impurities produced during adsorptive separation having an aldehyde group or a carboxyl group from it, supplied to the adsorptive separation step.

Remarks

We have amended the Specification to correct several typographical errors. No new matter has been added.

We acknowledge the objection to Claims 4 - 6 with respect to multiple dependencies. Those multiple dependencies have been removed so that all of Claims 4 - 6 now depend exclusively from Claim 1. Examination on the merits and allowance thereof is respectfully requested.

We have added new Claims 7 - 10, which are similar to Claim 1 except that, in the case of Claim 7, it refers to removing oxygen-containing compound impurities. Claim 8 specifies that the impurities have an aldehyde group or a carboxyl group. Claim 9 further recites that the impurities are produced during the adsorptive separation. Finally, Claim 10 includes all three of the above features. Support for those features may be found in the Specification in the paragraph spanning from lower portion of page 14 through the end of the same paragraph as it extends through page 15. Accordingly, no new matter has been added. Examination on the merits and allowance thereof is respectfully requested.

Turning now to the merits of the invention, it has been a longstanding problem in the art that the efficiency and effectiveness of adsorbents is degraded over the course of time. As noted by the Applicants in the description of the related art section of the Specification, there have been a number of techniques adopted to prolong the life of such adsorbents. It has also been the case that desorbents used in the process have been circulated and reused. However, the Applicants have discovered that reuse of the desorbent is also a problem because, over the course of time, it too can become contaminated with minor impurities which accumulate and, thus, gradually degrade the adsorbent. The Applicants have accordingly developed a method for producing aromatic

compound isomer substituted with alkyl group(s) and/or halogen atom(s) through adsorptive separation by the use of a zeolite containing an adsorbent and a desorbent wherein the desorbent is, after having been processed for removing impurities therefrom, supplied to the adsorptive separation step. We respectfully submit that the prior art neither discloses, teaches or suggests this novel and non-obvious advance in the art.

Of even further significance is the fact that there is no disclosure, teaching or suggestion that impurities having any significance exist in the desorbent at recovery line 17 and that such impurities could or should be removed or that there would be any benefit to so doing. In fact, we respectfully submit that Kanai et al. is so completely silent on this point that it is non-enabling as a reference under either or both of §§102 or 103. This is inherently the case because there is no recognition of the presence of impurities in the first place, much less that there would be a benefit to removing them or as to <u>how</u> they would be removed. Thus, we respectfully submit that Kanai et al. is inapplicable under §§102 and 103. Withdrawal of the rejection of Claims 1- 3 based on Kanai et al. is accordingly respectfully requested.

McCulloch et al., in contrast to Kanai et al., does disclose reuse of the desorbent. The teachings of this point may be found in Column 4 beginning at line 56 and extending through the paragraph at the top of Column 5. McCulloch et al. specifically disclose that the desorbent should be separable from the feed mixture and that it should further be separable from the extract and the raffinate product. However, those of ordinary skill in the art clearly recognize that the extract and the raffinate are not impurities and there is utterly no disclosure, teachings or suggestions in McCulloch et al. with respect to the existence of impurities, that such impurities should or could be removed and that any benefit could or would be gained by so doing. Accordingly, McCulloch et al. is also completely silent as to <u>how</u> such removal of such unrecognized impurities could be

achieved. Accordingly, we respectfully submit that McCulloch et al. is also non-enabling as a prior art reference against Claims 1 - 3 as solicited herein. McCulloch et al. simply did not appreciate the potential existence of impurities and how they might effect the overall process as it applies to the efficiency and effectiveness of the adsorptive separation process. Withdrawal of the 35 U.S.C. §§102 and 103 rejections of Claims 1 - 3 is accordingly respectfully requested.

To further illustrate the insufficiency of the Kanai et al. and McCulloch et al. publications with respect to enablement, we invite the Examiner's attention to *Beckman Instruments, Inc. v. L.K.B. Produkter AB,* 13 USPQ 2d, 1301 (Fed.Cir.1989) wherein the Court of Appeals for the Federal Circuit set forth this fundamental principle with respect to the applicability of prior art against a claimed invention:

> In order to render a claimed apparatus or method obvious, the prior art must enable one skilled in the art to make and use the apparatus or method. *In re Payne*, 606 F. 2d. 303, 314, 203 USPQ 245, 255 (CCPA 1979). 13 USPQ at 1304.

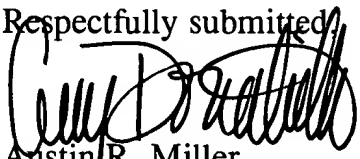
It is essential in accordance with this decision of the CAFC that a prior art reference or references applied against a claimed invention must provide sufficient disclosure to those of ordinary skill in the art to be able to practice the invention. In this case, there is no such enabling disclosure in Kanai et al. and McCulloch et al. The references fail to teach those of ordinary skill in the art how the impurities could or should be removed. One of ordinary skill in the art would quite simply be left in the dark as to how to achieve this important aspect of the invention as claimed herein.

It is critical under *Beckman Instruments, Inc.* in maintaining a rejection that the suggestion or teaching concerning the hypothetical modification be described in sufficient detail to enable one of ordinary skill in the art to achieve the modification. In this case, Kanai et al. and McCulloch et al. fail to provide such an enabling disclosure. The reasons

for this are clear -- they fail to teach or suggest the existence of impurities in the first place.

In light of the foregoing, we respectfully submit that the entire Application is now in condition for allowance, which is respectfully requested.

Respectfully submitted,



Austin R. Miller
Reg. No. 16,602
Guy T. Donatiello
Reg. No. 33,167
Attorneys for Applicants

ARM:lh
(215) 563-1810